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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/806,914

03/23/2004

Masahiro Ikeda

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3878

7590

04/18/2006

Patrick G. Burns, Esq.
GREER, BURNS & CRAIN, LTD.
Suite 2500
300 South Wacker Dr.
Chicago, IL 60606

EXAMINER

NGUYEN, THANH NHAN P

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/806,914

Applicant(s)

IKEDA ET AL

Examiner

(Nancy) Thanh-Nhan P. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-10,13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-10,13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/30/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is responsive to Amendment dated 1/30/2006.

Claims 3, 11 & 12 are cancelled. Claims 1, 2, 5-10, 13 & 14 are pending for the examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5-7, 9, 10, 13 & 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art (admission) in view of Shimada et al (US 5,910,829) and Ono et al (US 2005/0083471).

Regarding claims 1 & 2, Admission discloses a liquid crystal display (LCD) panel, comprising a display area (202) for displaying images, and a frame area (204) that surrounds the display area, wherein the frame area comprises: a transparent substrate (206), a first electrode (210) that counters the color filters, a second electrode (216) that counters the first electrode, and liquid crystal that is inserted between the first electrode and the second electrode, [see fig. 6].

Admission lacks disclosure of the frame area comprises a plurality of color filters provided side-by-side on the transparent substrate, each of the color filters filtering one of at least two predetermined colors; wherein each of the color filters is one of red, green, and blue colors.

Shimada et al discloses in the frame area, a plurality of color filters provided side-by-side on the transparent substrate, each of the color filters filtering one of at least two predetermined colors; wherein each of the color filters is one of red, green, and blue colors, [see fig. 15], for the benefit of preventing the coloring of light through the light blocking layer from occurring, [see col. 20, lines 59-62]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have a plurality of color filters provided side-by-side on the transparent substrate in the frame area, each of the color filters filtering one of at least two predetermined colors; wherein each of the color filters is one of red, green, and blue colors for the benefit of preventing the coloring of light through the light blocking layer from occurring.

Admission further lacks disclosure of wherein the first electrode and the second electrode are connected to a common voltage, and wherein liquid crystal display panel is a normally-black liquid crystal panel.

It was well known that the normally black condition, which generates a black display in a state in which an electric field is not applied to the liquid crystal, or there is no electrical potential difference between the first electrode (said pixel electrode) and the second electrode (said common electrode); or voltages applied to the first electrode and the second electrode are the same; or the first electrode and the second electrode having/connecting to a common voltage, as evidenced by Ono et al, [see par. 0204], for the benefit of achieving black display in the desired area and being possible to strengthen the function of blocking light as black matrix. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to

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have the first electrode and the second electrode are connected to a common voltage, and wherein liquid crystal display panel is a normally-black liquid crystal panel for the benefit of achieving black display in the desired area and being possible to strengthen the function of blocking light as black matrix.

Regarding claim 5, Admission lacks disclosure of wherein thickness of the color filters in the frame area is equal to thickness of a plurality of color filters in the display area.

Shimada et al discloses wherein thickness of the color filters in the frame area is equal to thickness of a plurality of color filters in the display area, [see fig. 15], for the benefit of having no adverse effect due to the thickness variation which is present when the light blocking layer is formed of two layers of different colors, [col. 18, lines 55-57]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to form the thickness of the color filters in the frame area is equal to thickness of a plurality of color filters in the display area for the benefit of having no adverse effect due to the thickness variation which is present when the light blocking layer is formed of two layers of different colors.

Regarding claim 6, Admission discloses wherein a transparent protective coat is provided between the color filters and the first electrode, [see fig. 6].

Regarding claim 7, Admission discloses wherein a spacer member (222) for regulating the thickness of the LCD panel is provided in the frame area, [see fig. 6].

Claims 9 & 10 are met the discussion regarding claim 1 rejection above.

Claim 13 is met the discussion regarding claims 9 & 2 rejection above.

Claim 14 is met the discussion regarding claims 10 & 2 rejection above.

Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art (admission) in view of Shimada et al and Ono et al as discussed above, and further in view of Matsuoka et al (US 6,348,958).

Regarding claim 8, Admission lacks disclosure of an area occupancy ratio of the color filters in one color is different from an area occupancy ratio of the color filters in another color.

Matsuoka et al discloses an area occupancy ratio of the color filters in one color is different from an area occupancy ratio of the color filters in another color, [fig. 1], for the benefit of being possible to omit the step of manufacturing a black mask so as to reduce the cost; and consequently, a color filter for an optical display device can be provided with an excellent appearance on a display, [see abstract]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have an area occupancy ratio of the color filters in one color is different from an area occupancy ratio of the color filters in another color for the benefit of being possible to omit the step of manufacturing a black mask so as to reduce the cost; and consequently, a color filter for an optical display device can be provided with an excellent appearance on a display.

Response to Arguments

Applicant's arguments, filed 1/30/2006, with respect to the rejection(s) of claim(s) 1 under 35 U.S.C 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of

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rejection is made in view of Admission, Shimada et al & Ono et al, [same references, but different view of rejection].

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P. Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on M-F/9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

(Nancy) Thanh-Nhan P Nguyen
Examiner
Art Unit 2871
-- April 16, 2006 --

TN

Andrew Schechter
ANDREW SCHECHTER
PRIMARY EXAMINER